

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number  
**WO 2005/080222 A1**

(51) International Patent Classification<sup>7</sup>: **B65D 81/00**

(21) International Application Number:  
PCT/GB2005/000488

(22) International Filing Date: 11 February 2005 (11.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0403499.7 17 February 2004 (17.02.2004) GB

(71) Applicant (for all designated States except US): **KRAFT FOODS R & D, INC.** [US/DE]; Bayerwaldstrasse 8, 81737 Munich (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HALLIDAY, Andrew, Michael** [GB/GB]; Kraft Foods UK Ltd., Rus-cote Avenue, Banbury, Oxfordshire OX16 2QU (GB). **MACMAHON, Alistair, John** [GB/GB]; Kraft Foods UK Ltd., Rus-cote Avenue, Banbury, Oxfordshire OX16 2QU (GB).

(74) Agents: **ALEXANDER, Thomas, Bruce et al.**; Boul-t Wade Tennant, Verulam Gardens, 70 Gray's Inn Road, Lon-don WC1X 8BT (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

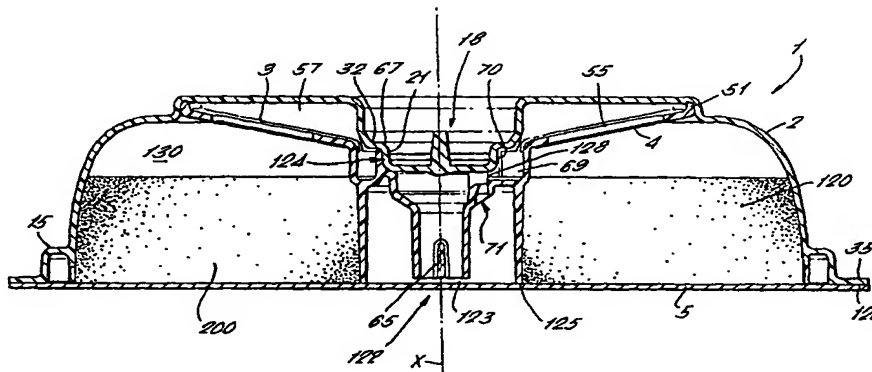
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,

[Continued on next page]

(54) Title: CARTRIDGE FOR THE PREPARATION OF BEVERAGES



(57) Abstract: A cartridge (1) containing one or more beverage ingredients (200) and being formed from substantially air- and water-impermeable materials, the cartridge comprising an inlet for the introduction of an aqueous medium into the cartridge, and an outlet for a beverage produced from the one or more beverage ingredients. The cartridge comprises means for producing a jet of the beverage, wherein the means for producing the jet of the beverage comprises an aperture (70) in a beverage flow path linking the inlet to the outlet, characterised in that the cartridge comprises one or more microscopic projections (150) at or in the vicinity of the aperture for contacting the beverage flow path.



JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*